

ABSTRACT

A radio link protocol (RLP)/point-to-point protocol (PPP) design is disclosed for wireless multimedia packet networks that passes corrupted packet data and error location information among OSI layers. The RLP layer provides erasure data frames and optionally error location indicators to the PPP layer. When the PPP layer has access to the erasure data frames, the data frames can be padded with a predefined value, such as all zeroes "0" to prevent error propagation from one data frame (or octet) to the following data frames (or octets). When the PPP layer has access to the error location information, the PPP layer can detect if the PPP packet header is corrupted. When a valid header is detected, the PPP layer forwards the packet payload to the higher layers (TCP, UDP) whether or not the payload is properly received. Thus, the application has access to all the usable information, so the application can determine whether and how to utilize the information. The RLP/PPP design of the present invention allows packets with partially corrupted payloads to still be forwarded to the UDP layer and then to the application layer.

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